

BIENNIAL REPORT
OF THE
BOARD OF
GAME COMMISSIONERS
OF THE
COMMONWEALTH OF PENNSYLVANIA
FOR THE
1922-1924
BIENNIUM

HARRISBURG, PENNA.,
J. L. L. KUHN, PRINTER TO THE COMMONWEALTH
1924.



BIENNIAL REPORT
OF
BOARD OF GAME COMMISSIONERS

Harrisburg, Pa., June 1, 1924.

To His Excellency, Gifford Pinchot, Governor of Pennsylvania:

Sir: As directed by Act of Assembly, the Board of Game Commissioners beg to submit their report for the past two years. For your further information, the report of our Executive Secretary to the Board covering various phases of the work is attached in order that such material may be printed and distributed to the citizens of the Commonwealth.

The members of the Board have spent a great deal of their time investigating conditions throughout the state, and have addressed many gatherings of sportsmen and other groups interested in the outdoors. We find that sentiment concerning wild life conservation has improved measurably, and that the law in general is being observed far better than ever before. Many individuals, and practically all sportsmen's organizations, are taking an active interest in aiding our field officers to secure proper law observance. Such interest and support is invaluable, and augurs well for the future of wild life conservation in the Keystone State.

1923 LEGISLATION.

The new game code signed by your Excellency is one of the outstanding achievements in wild life conservation, not only in Pennsylvania, but throughout the Nation. While much difference of opinion prevailed during the Session of the Legislature concerning this new code, and some portions of it would have been more desirable if changed before final passage, the code in its present form should be given a thorough trial before attempting further changes, and we are strongly of the opinion that no amendments should be recommended for consideration at this time.

Constant changing of the game laws is not conducive to law observance, even though the great majority of people desire to obey them, and it always serves as an excuse to the few who do not wish to comply with game laws at any time unless compelled to do so.

ADMINISTRATIVE ORGANIZATION.

Our administrative organization, both in the office and in the field, has been reorganized and better coordinated. A special school of instruction was held at the Crystal Springs' Club in Clearfield County in August, 1923, for all field officers. The new game code was studied and explained in detail, and various phases of the work of other Departments with which our officers cooperate were covered thoroughly. Addresses on cooperative work were delivered by Major Robert Y. Stuart, Secretary of the Department of Forests and Waters; Honorable Nathan R. Buller, Commissioner of Fisheries; Major William E. Mair, Deputy Superintendent of State Police; J. Q. Creveling, Esq., Wilkes-Barre; and Honorable George H. Wirt, Chief of the Bureau of Protection, Department of Forests and Waters. Instructions concerning forest nursery work were given by Forester Dague at the Clearfield nursery. A fine spirit of cooperation prevailed, and these addresses covered the points necessary for our officers to assist in the most efficient manner.

The wisdom of holding this field conference was clearly demonstrated by the improvement in the work of all field officers during the past year, and we are planning a similar conference this coming August in another part of the state.

About the time the State Compensation Law became effective, the Board of Game Commissioners deemed it advisable to give all employes, particularly field officers, a careful physical examination before employment. This examination has enabled the Board to employ only persons physically fit to handle the work advantageously. While an effort has been made to restrict such employment to young, active men who would constantly develop a greater degree of efficiency, the Board found that frequently men past middle age were employed. Many of these men, while good officers for a time, began slowing up just about the time their experience fitted them to become most valuable to the organization. It has been the Board's experience that men beyond middle life are usually unable, both physically and mentally, to keep abreast with a rapidly developing organization and everchanging conditions surrounding the work, with the result that they become inefficient. The Board, therefore, recently decided that for the good of the service age limits for field employes should be fixed, and that selections should be made by competitive examination. In line with your wishes, promotions in the service are now based entirely on general efficiency rather than length of service.

During the short time these plans have been operative an improvement in the personnel is clearly noticeable, and officers formerly in the service even though as a group they have been conscientious public servants, have taken hold of the work with an entirely new spirit.

As a matter of information to the general public, the Board believes it advisable to publish their administrative chart as part of this report so that those interested may learn how the various branches of the service are coordinated.

RESTOCKING GAME.

Your Game Commission is making an extensive survey and study throughout the United States, Canada, Mexico and Europe of the status of available game that may be desirable for stocking purposes, also how best to increase feed for wild life, with a view of securing all desirable game available and furnish more food both for native as well as stocked game. More game has been stocked during the past two years than any similar period in the history of the Board.

VERMIN CONTROL.

The scope of our former bounty system has been extended to include all general vermin control activities, and that branch of our service, heretofore handling only the payment of bounties, has been changed to the Bureau of Vermin Control. Among other things, special trapping instructors have been employed, the services of whom are available to sportsmen's organizations, county fairs, scout camps, and others interested. By arranging a schedule of demonstrations on trapping and general advice on vermin control, during which other conservation questions are explained whenever possible, much constructive work has been accomplished and the general public has become interested in wild life conservation. Largely as a result of the activities of the trapping instructors, various species of destructive birds and animals have been killed in much larger numbers than anytime in the past. The increase in certain bounties was partly responsible for the increased effort made by trappers during the past year, but without the assistance of the trapping instructors nothing like the decided increase in the quantity of vermin destroyed would have been possible.

During the past two fiscal years slightly less than \$100,000 per year have been expended for bounties alone. From 26,500 to 30,000 separate bounty claims are handled annually by the Bureau of Vermin Control. For further information on the number of animals presented for bounty, the attached report of our Secretary will prove interesting.

Due to the state-wide activities of our trapping instructors, to many addresses delivered to sportsmen by members of the Board and their employes, a deep interest in the whole cause of conservation has been aroused, and there is today a state-wide demand for lecturers to appear before the grange, Boy Scout and other organizations of all kinds. The Board feels they should employ one or two high grade lecturers to carry to the people of the state the message of conservation.

GAME REFUGES AND PUBLIC HUNTING GROUNDS.

Every possible effort is being made to extend the Pennsylvania system of game refuges and public hunting grounds. The Board now has under control for refuges and public hunting grounds approximately 150,000 acres, most of which is wild land divided into tracts of reasonable size well distributed throughout the state. Of this territory almost 75,000 acres have been set aside for refuge purposes, on which no hunting is permitted at any time, and the balance is open to public hunting and recreational use. The Board has to date purchased slightly over 55,000 acres of land at a cost of \$156,682.45, or an average purchase price of \$2.84 per acre. The Board has under contract for purchase almost 30,000 acres additional, the purchase price of which will be approximately \$80,000. In addition to the purchase price, ample provision must be made for title examinations, surveys, creation of refuges, buildings, roads, etc., on each tract, and the annual taxes under state law amount to \$500 for every 10,000 acres, or five cents per acre.

With the rapidly growing tendency of individuals and hunting clubs to purchase large areas of wild lands for their own exclusive use, our system of refuges and public hunting grounds should be extended as rapidly as funds will permit; otherwise in a comparatively short time many desirable tracts of land will no longer be open to the use of the public.

An effort is being made to administer these lands along the same modern lines as state forest lands are administered. The construction of roads, trails, and telephone lines for protection against fire, while quite expensive, seems to be the only business-like method of procedure, and the Board is endeavoring to extend such protection as rapidly as funds will permit.

The Auxiliary Game Refuge, which may be established on practically any type of lands, is meeting with a demand from the sportsmen and general public for refuges, even though smaller than the regular refuge with keepers in charge, near centers of population. While only ten of these refuges have so far been established, it is the plan of the Board to increase this number to at least 200 within

the next two years. The cost of these Auxiliary Refuges is comparatively small, and the results obtained therefrom fully justify the effort and expense to locate suitable available lands for this purpose.

The refuge system of Pennsylvania, surrounded by public hunting grounds, is furnishing more recreation to the sportsmen of the state than can be supplied through the direct purchase of game or rearing game on farms with the same expenditure.

PLANTING FOR FOOD AND COVER.

An effort has been made to encourage the people of Pennsylvania to plant more permanent food and cover for wild life. Interested sportsmen and the representatives of the Board have already accomplished much along this line, and the work is only fairly started. With the continued assistance of those interested, it will be possible to conduct such planting operations on a much more extensive scale in future years. Food and cover are absolutely necessary to increase game, and no better line of activity can be undertaken by individuals and conservation organizations.

STATUS OF GAME.

During the past two years deer and bears have increased quite rapidly. Wild turkeys, ruffed grouse, quail, and squirrels have shown a moderate increase, while the supply of rabbits has not been up to expectations. Elk are increasing steadily, although because of their disposition to cover a large area in their wanderings and cause annoyance to landowners, it is very doubtful whether the re-introduction of elk was advisable. Ringneck pheasants are apparently showing an annual increase, and under the new law protecting females will increase more rapidly than heretofore.

The situation with reference to deer is becoming somewhat serious in certain agricultural sections. Female deer have increased so rapidly in sections stocked early in the history of the Board and are encroaching upon surrounding farms to an extent that is disconcerting, to say the least. This condition has been aggravated through the protection of forests against fires, with the result that undergrowth has been choked out in certain forest areas and the deer are compelled to depend upon surrounding territory for suitable forage. Believing that constructive efforts to supply more feed for game, especially deer, will help game decidedly, and also remove the cause for complaint in many instances, the Board has instituted an intensive food planting campaign. While efforts are being made to trap surplus female deer and transfer them to extensive forest

areas where they will not be a source of annoyance, this plan does not afford sufficient general relief. The new law permitting the Board to aid landowners to fence their property against deer does not seem to meet the wishes of the landowners, as comparatively few farmers feel they can afford to pay their portion of a suitable fence, even though their share would not exceed the cost of an average woven wire fence.

It is the opinion of the Board that no arrangement for paying damages for crops destroyed by deer will work out satisfactorily, and probably the only safe plan will be to open the season for female deer in sections where necessary to relieve conditions after the close of the season for male deer. While the Board is loath to apply this method of relieving the situation, it is their opinion that this is one solution to the problem.

The actual kill of game seems to be increasing in quantity each year. This is true particularly of large game. The figures for the kill during the 1922 season indicate that 6,700 tons of game of various kinds were taken in Pennsylvania. This among other species included 6,115 legal buck deer, 563 black bears and 5,400 wild turkeys. The figures on the kill for 1923 are not yet fully tabulated, but will include 6,452 legal buck deer, 23 large bull elk, 500 black bears, and over 6,000 wild turkeys of which we have record.

From personal observations, the Board is convinced that the sportsmen of Pennsylvania today no longer measure the success of their hunting season by the amount of game taken, but by the pleasure and physical value of the recreational facilities afforded by a hunting trip, with its many varied and beneficial experiences.

HUNTING LICENSES AND ACCIDENTS

A total of almost 500,000 Resident and Non-Resident Hunters' Licenses were issued in Pennsylvania last year. In addition to the licensed hunters, it is conservatively estimated that on the 200,000 farms in the state 100,000 landowners or members of their families hunted without licenses, or a total of 600,000 persons enjoyed this means of recreation. During the last five years there has been an annual increase of from twenty-five to thirty thousand hunters securing licenses, and indications are that this same rate of increase is likely to continue. During the 1923 season more than 5½% of our entire population secured hunting licenses, or there were more than eleven licensed hunters to every square mile in the state. By adding those who hunted legally without licenses, 6⅔% of the entire population hunted, or 13⅓ persons to every square mile.

The number of hunting accidents varies greatly, depending somewhat upon weather conditions. During a snowy, icy hunting season

there are usually more accidents than during a dry season. This does not always hold true, however, for while in 1922 there were 37 fatalities and 125 non-fatal accidents, during the season of 1923 the fatal accidents numbered 53 and the non-fatal 105. Almost half of all hunting accidents are self-inflicted, mostly by inexperienced hunters. The new law requiring that boys under sixteen years of age be accompanied by a responsible adult has saved quite a few lives. Everything possible is being done by the Board, ammunition concerns and the public press to educate hunters in the proper use of firearms so as to avoid accidents.

While the number of hunting accidents is far too large, it has been our observation that the same number of persons engaged in other similar strenuous outdoor recreational pursuits in the same given length of time experience about the same ratio of accidents.

TWO YEAR PROGRAM.

The Board at a meeting on May 9, 1924, adopted the following two-year program:

1. Secure cooperation of sportsmen in passing bond issue for purchase of wild lands for forest and recreational purposes; also more extensive game and wild bird food and cover planting campaigns.
2. Creation of at least 200 Auxiliary State Game Refuges with public hunting grounds around them to supplement present refuge system. (Now have ten Auxiliary Refuges)
3. Further extension of Regular Game Refuge System, including migratory waterfowl refuges, surrounded by public hunting grounds. (Now have thirty-two regular upland game refuges)
4. Much more extensive but safely conducted vermin control campaigns exclusively under the direction of the Board, including employment of additional trapping instructors and such other agencies as may be necessary to reduce game destroyers.
5. More extensive winter feeding of game and wild birds.
6. Aid landowners and sportsmen to break up unsportsman-like practices and bring about better understanding and co-operation.
7. Aid in overcoming depredations from game by transfer from sections where destroying crops.
8. A comprehensive lecture program throughout the state on the value of all wild life, including song and insectivorous birds.
9. A more extensive general educational campaign concerning the activities of the Board, especially quarterly reports to interested organizations and the general public.

The foregoing program met with a hearty response and assurance of support from the sportsmen of the state, and the Board will exert every energy toward carrying out this program in full.

We find that sportsmen generally are urging the approval of the forest purchase loan, and are doing what they can to that end. The prospect of more public hunting and recreational grounds has a popular appeal. The proposed creation of wild waterfowl refuges, something entirely new in Pennsylvania, and the creation of at least 200 Auxiliary Game Refuges, are both in accord with the wishes of the sportsmen.

BUDGET AND FINANCES.

By reference to financial statements of our Secretary attached, it will be noted that during the 1922 fiscal year net revenue from hunters' licenses amounted to \$503,600.53 and deposits from penalties, costs, etc., \$58,514.56, or a total of \$562,115.09. Expenditures during the same period amounted to \$461,272.68. During the 1923 fiscal year the revenue from hunters' licenses was \$613,007.75, and from penalties, costs, special licenses, etc., \$60,250.49, or a total of \$673,258.24, while the expenditures during the same period were \$608,168.04. The failure of owners of lands under contract to perfect titles and the failure of dealers to deliver game in quantities contracted for were responsible for expenditures being slightly less during the past two years than anticipated.

In addition to the above expenditures, two separate appropriations, one to cover damages done to livestock and bees by bears, amounting to \$6,000, and the other to cover building fences on a cooperative plan to protect lands against deer, amounting to \$10,000, have been set aside. Both of these appropriations cover the biennium ending May 31, 1925. Of the former appropriation, claims amounting to \$1,212 were paid prior to June 1, 1924, and agreements have been made for building fences that will use a portion of the moneys set aside for that purpose.

Under the budget for the present Legislative biennium, 1923 to 1925, the expenditures for various activities of the Board are divided up approximately as follows:

General office staff salaries	3.27%
Bureau of Protection:	
For salaries and expenses in connection with law enforcement, feeding and distribution of game, general field patrol work, etc. by field officers	38.5 %
Bureau of Refuges and Lands:	
Salaries and all expenses in connection with refuge administration, game propagation, land purchases, buildings, roads, etc.	18.8 %

Bureau of Vermin Control:

Salaries and all expenses for vermin control activities, including payment of bounties	17.4 %
Purchase of game, feed for game, and expressage	14.44%
Paper, cardboard, printing and license tags	4.91%
General office supplies and equipment, including postage	2.68%

Our budget for the present fiscal year will utilize all of the funds now to our credit in the State Treasury, and the income during the year, except a sufficient amount to carry on the work until the fall of 1925 when additional revenue will again become available. The field is so large and the demands for help so varied that every cent of available revenue will be needed to conduct the work of the Board in a business-like manner.

Respectfully submitted,

HARRY J. DONALDSON, President.

J. S. SPEER, Vice President.

FRANCIS H. COFFIN.

ADOLF MÜLLER.

JARED M. B. REIS.

FRANKLIN G. McINTOSH.

ATTEST:

SETH E. GORDON,

Executive Secretary.

May 31, 1924.

To The Members of the Board of Game Commissioners,
Commonwealth of Pennsylvania.

Gentlemen:—I beg to submit the following report covering activities under the direction of the Board during the past biennium, including the period between December 1st, 1921 and May 31st, 1922. The last printed report covered the 1921 fiscal year ending November 30th, 1921. In order that important material covered in various special reports to the Board since that time may be made available for general distribution, certain information and data contained in special reports is herein incorporated.

Since the issuance of our last report, important developments in the work of the Board have taken place. Among other things the field organization, better coordinated than ever before, has been able to attain a higher degree of efficiency throughout and secure more active cooperation from sportsmen and others interested. The public press has taken much interest in wild life conservation problems, and has supported the work in a most commendable manner, and the general public is better informed on the subject of wild life conservation than at any time in the past.

Other Departments have cooperated with the Board in its field activities, and our field officers have in turn assisted such Departments wherever possible. This is true particularly of the Department of Forests and Waters, the Board of Fish Commissioners, the Department of Agriculture, and the State Police.

ACCOMPLISHMENTS.

During the past two and one-half years the outstanding developments and accomplishments in the work of the Board are as follows:

1. LAW CODIFICATION: The numerous laws dealing with game, fur-bearing animals and wild birds have been codified and modernized, being reduced to about two-thirds of their former bulk. In the process of codification, various desirable changes were made and some few new features added. More than fifty-seven different acts were specifically repealed and wiped off the statute books. A number of these acts were considered obsolete but had not been repealed; the majority of them were laws that were still considered in force as part of our statutes applying to this subject.

2. ADMINISTRATIVE ORGANIZATION: The administrative organization, both in the office and in the field, was reorganized to guarantee better coordination and more efficient results throughout,

the activities now clearing through three Bureaus in the office with nine Division Supervisors in the field, under whom all field activities are coordinated properly.

3. BUDGET AND ACCOUNTING SYSTEM: A new and more detailed budget and accounting system to accord with the general plan of the present administration has been established. While the Board had been operating under a budget system, the present system is far superior, and lends itself to more definite allocation of funds for specific purposes. The new uniform accounting system also gives a more detailed record of expenditures.

4. RESTOCKING: More extensive restocking of game than at any time in the past.

5. VERMIN CONTROL: A more intensive system of vermin control through the aid of expert trapping instructors and competitive contests fostered by sportsmen's organizations.

6. REFUGE SYSTEM: Further extension of system of game refuges and public hunting grounds.

7. FOOD AND COVER PLANTING: Successful campaigns to secure planting of more permanent food and cover for wild life, particularly at refuges and surrounding territory.

To amplify the foregoing, the following information will be of value:

LEGISLATION.

The sentiment throughout the state, especially among organized sportsmen, in favor of a simplification of the game laws increased until the demand for such codification became quite insistent. After securing approval of the Board, your Secretary submitted an outline to the Legislative Reference Bureau and requested their assistance in preparing a draft to be submitted to the sportsmen for their approval or suggestions. An Attorney in that Bureau spent almost three months on the draft, and the Assistant Director, John H. Fertig, Esq., and your Secretary working jointly spent fifteen days at various periods giving the draft careful scrutiny and re-arrangement where necessary. The draft was then mimeographed and two copies submitted to every sportsman's organization in the state, one copy of which they were requested to return with suggestions. Many suggestions were received, and changes were made in the draft to meet what appeared to be the wishes of the majority making suggestions. When the draft was finally introduced by Chairman Beaver of the House Game Committee early in February 1923, differences of opinion soon developed. After strenuous effort, the Legislature agreed upon and passed a code which, while in some respects radi-

cally changed from the draft as introduced, on the whole is a decidedly forward step, and the sportsmen now can easily read and comprehend the law dealing with game, fur-bearing animals, and wild birds.

The principal changes made by the new 1923 game code are as follows:

1. Terms of members of Board increased from three years to six years to guarantee continuity of policy.
2. The official title of the administrative officer was changed to Executive Secretary instead of Secretary as heretofore.
3. All Special Deputy Game Protectors, entitled to part of penalties collected for services, were discontinued, and Deputy Game Protectors to serve without a division of penalties were provided for instead.
4. The powers of officers of the Board were clearly enumerated, no new powers being added.
5. Three herons heretofore listed as unprotected birds in Pennsylvania but protected by Federal law were placed on the list of "protected birds," with a provision permitting them to be killed when caught in the act of destroying fish in private rearing ponds, Federal permit also necessary. The raven, formerly on the list of unprotected birds because of its scarcity, was placed on the protected list.
6. The Resident Hunter's License fee was increased from \$1.00 to \$1.25, giving the Board \$1.15 net. The cost of all printing, office supplies, etc., heretofore furnished from general funds of the Commonwealth, is now charged against the Game Fund. The Non-Resident Hunter's License fee was increased from \$10 to \$15, giving the Board \$14.50 net when issued by County Treasurers.
7. Other changes concerning hunters' licenses are a provision denying persons physically or mentally unfit to carry firearms; the right to secure licenses; requiring applicants for licenses to give their occupation instead of complexion as heretofore; changing the license period so that it runs from May 1st to April 30th of the year following instead of the calendar year, and requiring a license to hunt for all birds and animals whether game or otherwise; denying boys under sixteen the right to hunt unless accompanied by an adult, but exempting such boys from securing a license to trap for vermin or fur-bearing animals; requiring a report of all birds and animals killed within thirty days after the expiration of the license; and reducing the fine for failure to countersign licenses from \$20 to \$5.

8. The law on licenses for collecting specimens, propagating game and retaining and selling ferrets was clarified, and a new special license known as a fur dealer's license was added. The purpose of the fur dealer's license, costing \$1.00, is simply to register fur dealers, prohibit unscrupulous persons from purchasing furs in the state, and to collect data on fur resources.

9. Open seasons were left the same as under the old law except slight changes in the season for wild waterfowl and raccoons. Female ringneck pheasants were absolutely protected at all times.

10. The law on deer was changed so that only male deer with two or more points to one antler may be killed, with an added feature providing that a deer with an antler six or more inches long without points shall be considered legal.

11. Bag limits were continued the same as under the old law, except the daily bag limit for male ringneck pheasants was reduced to two birds daily instead of three of either sex and the camp limit on bears was increased to four instead of three.

12. The law relative to closing counties was changed to include all species of game and fur-bearing animals, and the Board was given power to reduce the length of the general open season in any county upon petition. Another new feature was added permitting the Board to extend the general open season upon petition as conditions warrant for squirrels, rabbits, and woodcock.

13. A new feature was added to the law giving the Board power to declare an open season for female deer, upon petition of two hundred or more residents, in any county, township, or part thereof, for a three day period after the close of the season for male deer. The fee for such special licenses is \$5 and the Board decides the number of licenses to be issued.

14. The law governing the size of traps was clarified, and a provision added requiring trappers to mark all traps with a metallic plate or tag giving their name and address and to visit traps every thirty-six hours.

15. The general hunting regulations were changed somewhat, the most important being a provision permitting hunting for all game except wild turkeys from one-half hour before sunrise to one-half hour after sunset, wild turkeys to be hunted only between sunrise and sunset; prohibiting shooting unless game is plainly visible and making it unlawful to dig, cut or smoke live game out of its place of refuge; prohibiting the use of steel jacketed non-expanding bullets; increasing the number of decoys that may be used for wild water-

fowl, limiting the time decoys may be left in the water, and requiring decoys to be marked with name and address of owner.

16. Privileges of guides were extended, and non-residents permitted to take out the kill for two days instead of one day as heretofore.

17. The sale of all kinds of game, except deer and rabbits killed in another state, was prohibited. Heretofore certain other species could be sold under the state law.

18. The law covering game refuges was consolidated and changed to meet present conditions.

19. The penalty for an unnaturalized foreign born resident having a dog in possession was reduced to \$15 instead of \$25, the balance of the alien dog and firearms law being continued.

20. The bounty on wildcats was increased from \$8 to \$15, on gray foxes from \$2 to \$4, and on weasels was reduced from \$1.50 to \$1.00, the rate of bounty on weasels having little effect on the actual kill.

21. All moneys collected through the Board of Game Commissioners were merged into one fund in the State Treasury known as the Game Fund, held separate and apart for the use of the Board.

Various other liberal features were provided for by the new game code, penalties were reduced wherever possible, and the privileges of sportsmen extended consistent with proper law enforcement.

The new codified law, administered by our present organization, has brought about a much better understanding and general law observance than was possible at any time in the past. The sportsmen themselves are seeing to it that unscrupulous hunters obey the law. They generally look upon the fellow trying to "get by" without a license or killing before season or in excess of the bag limit as an outcast, and treat him accordingly. After all, such a person is like a man trying to enjoy a ball game through a knot hole in the fence—he gets only a long distance idea of the sport and contributes nothing toward the perpetuation or maintenance of the game. No sportsman wants to be placed in this class; neither will a true sportsman knowingly permit his neighbor to steal his sport by taking game illegally.

ADMINISTRATIVE ORGANIZATION.

As a matter of general information, our present organization functions as follows:

The Board, an executive and not an advisory body, is in direct

charge of all matters pertaining to policy, finance, and personnel. The Executive Secretary is the chief administrative officer in charge of all activities for the Board, with direct supervision and control over all other employes, educational activities, publicity, etc.

The Bureau of Protection has charge of game protection and supervision of all matters pertaining to law enforcement, winter feeding of game, field information and cooperative assistance to other Departments.

The Bureau of Refuges and Lands has charge of all matters pertaining to the administration of game refuges and lands, purchase of lands, establishment of new refuges, etc.

The Bureau of Vermin Control has charge of the examination, approval and payment of bounty claims, and all general vermin control activities, including direction of trapping instructors and other similar matters pertaining thereto.

The nine Division Supervisors, formerly known as Traveling Game Protectors, have general supervision of all field activities in their respective divisions, and are responsible for the control of field expenditures.

The District Game Protectors, sixty-four in number, are responsible for all field activities in their respective districts, including law enforcement, feeding and distribution of game, etc. In the matter of law enforcement and game feeding they have jurisdiction over the Refuge Keepers where refuges are located within their district. District Game Protectors also are in charge of any Assistant Game Protectors regularly assigned to them, and all Deputy Game Protectors within their district.

The Refuge Keepers, thirty-two in number, are in direct charge of all activities at their respective refuges, including vermin control, winter feeding of game, and the general administration of the refuges under the supervision of their Division Supervisor. Under the supervision of the District Protectors, Refuge Keepers are responsible for law enforcement and feeding activities in the territory near game refuges.

In addition to the above, two staff services, one the general office organization and the other the lecture and publicity service, are connected directly with the office of the Executive Secretary.

RESTOCKING.

The quantity of desirable game available for restocking is rapidly growing less in all parts of the country. Some states from which suitable game could be obtained a few years ago have since passed legislation prohibiting exportations. In other instances the sources of supply are being diminished rapidly. During the past two years

we have been fortunate in securing large quantities of ringneck pheasants and cottontail rabbits, but difficulty has been experienced in obtaining Mexican Bobwhite quail, wild turkeys and other suitable game. During the spring of 1923 no quail were exported from Mexico because of an embargo against exportation, but during the spring of 1924 quite a few birds were exported even though the tariff, both Mexican and United States Government, has reached the point where it is almost prohibitive.

Since December 1, 1921, practically three shipping seasons, we have purchased and stocked game as follows:

Rabbits, Cottontail	67,680	Deer	219
Hares, Varying (Snow-shoes)	3,819	Wild Turkeys	63
Quail, Bobwhite	20,998	Grey Squirrels	326
Ringneck Pheasants	15,303	Fox Squirrels	128
Ringneck Pheasant		Ruffed Grouse	23
Eggs	14,174	Beavers	4

More rabbits and ringneck pheasants were purchased during the past year than any previous stocking period, the number secured being 34,444 rabbits and 10,946 ringneck pheasants. We also purchased 6,057 quail during the same period.

During the spring of 1924 our first effort was made to band birds used for stocking purposes on an extensive scale. More than 5,000 Mexican bobwhite quail and over 4,000 ringneck pheasants were banded with aluminum bands consecutively numbered, and the words "Pennsylvania Game Commission" in abbreviated form thereon inscribed. The numbers of the bands used on the birds released will be a matter of office record on game stocking reports for each county, and will be the means of collecting much valuable data on these two game birds in the future.

The Legislature of 1923 inserted a provision in the new game code which directs the Board to expend for game stocking and feeding 20% of the net revenue derived from Resident Hunters' Licenses. This provision is not at all advisable, and it would be far better business for the Board to use its judgment as to the channels through which funds can be made to yield the largest return to sportsmen. Due to the scarcity of the supply, dealers knowing that a certain amount of money is to be used only for purchasing or propagating game for stocking purposes simply put up the prices on such game as they may have to offer, and the Board is not justified in paying unreasonable prices for game of any kind when the same amount of money otherwise expended will bring better results.

VERMIN CONTROL.

The Bureau of Vermin Control has not only handled the payment of bounties but has encouraged extensive vermin control activities among sportsmen's organizations and interested individuals. When Trapping Instructor Logue was employed the plan was to have him instruct the Refuge Keepers and then devote his time to instructing sportsmen in sections where vermin conditions were bad. Due to bear trapping work in Potter County, little was accomplished except among our Refuge Keepers until 1923. Through the Division Supervisors and District Game Protectors, arrangements were then made to send the Trapping Instructor on a pre-arranged trip into sections where conditions were badly in need of improvement. Trappers were gathered at various hamlets and villages near good game cover, and were given instructions and demonstrations which resulted in an immediate increase in the number of foxes and other game destroying animals trapped.

The work of the Trapping Instructor has secured a much better feeling among the sportsmen in the sections where this service was rendered than any other line of activity during the last ten years. Men who had trapped a great deal with but little success began producing pelts almost immediately, and many new recruits were added to the ranks of efficient trappers. The action of the Board in detailing a second man, Harry Van Cleve of Potter County, to this work is a step in the right direction.

An appeal to sportsmen's organizations to put on vermin contests has met with a hearty response. Many organizations offered cash and merchandise prizes, and sportsmen who heretofore took no interest in vermin control activities became active as members of such organized groups.

The activities of the Trapping Instructor, vermin contests, and publicity on the need for vermin control from this office, supplemented by the new rate of bounty on wildcats and foxes, resulted in a decided increase in the number of wildcats and foxes presented for bounty during the past year. As a matter of comparative information, I give below data on bounties paid during the past two years:

ANIMALS	June 1, 1922 to May 31, 1923	June 1, 1923 to May 31, 1924	TOTALS
Wildcats	351	617	968
Gray Foxes	4,530	7,730	12,260
Red Foxes	2,991	4,961	7,952
Weasels	50,548	44,488	95,036
Amount Paid	\$93,720.50	\$95,993.50	\$189,714.00
Re-certified claims paid	20.50	46.50	67.00
Total amount paid	\$93,741.00	\$96,040.00	\$189,781.00
Number of separate claims ..	28,545	26,550	55,095

From the above it will be noted that not only the number of wildcats and gray foxes presented for bounty increased during the last year, but that the number of red foxes presented increased decidedly even though the bounty remained the same. Weasels have dropped off somewhat, largely because of the reduction in bounty paid. However, from reliable information received it is apparent that fully as many weasels have been killed during the last year as the year previous, but because of the reduction in bounty and a much higher price for weasel pelts they were not sent to this office.

During the months of January and February an average of more than seven bags of mail were received daily. The largest amount of money paid out during any month of the above period was \$24,558.50 in December 1922, the heaviest claims usually being presented during January, February, and March.

During the same period our field officers killed large quantities of vermin of all kinds. During the past year alone almost 3,000 stray, homeless dogs and cats were disposed of. Other game destroyers killed include 50 wildcats, 110 gray foxes, 183 red foxes, 255 weasels, 9979 crows, 397 hawks, and 60 owls.

GAME REFUGES.

A total of thirty-two regular game refuges have been established. Of this number, twenty are situated on State Forests, eight are on lands purchased for refuge and public hunting purposes and four are on lands leased for such purposes, one of which is now under contract for purchase. The purchase of lands for refuge and public hunting grounds is far more desirable than leasing, although much difficulty is encountered in securing tracts desirably located and sufficiently compact to best serve the purpose.

The total area of lands set aside for the thirty-two regular refuges on which no hunting is permitted at any time is 72,836.7 acres. The area of the lands now under lease for refuges and public hunting lands is 28,951.6 acres, the total area of lands purchased is 55,188.63 acres, and 27,715.35 acres are under contract for purchase. The total length of lines surrounding the thirty-two regular refuges is 265 miles, or an average of more than eight miles each.



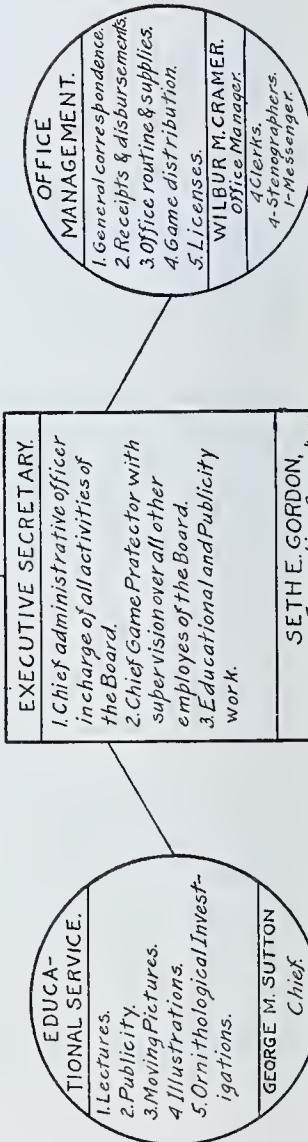
PENNSYLVANIA
 BOARD OF GAME COMMISSIONERS
 ADMINISTRATIVE

THE BOARD

DR. H. J. DONALDSON, PRES.
 JOHN S. SPEER, VICE PRES.
 ADOLF MÜLLER,
 JARED M. BREIS,
 FRANCIS H. COFFIN,
 FRANKLIN G. McINTOSH.

*1. An Executive Board, non-salaried,
 with administrative authority.
 2. Finance and personnel.
 3. Formulation of Policies.*

ORGANIZATION



5. Forest protection of State Game Lands and Refuges.
6. Cooperative assistance with Department of Forest and Waters in forest fire control.
7. Planting permanent food and cover for game.
8. Deer-proof fences.

5. Distribution of traps
6. Cooperative field assistance with Fish and Forestry and Agriculture Departments in law enforcement.
5. Winter feeding of game.
6. Special investigations.

W. GARD CONKLIN Chief
/Stenographer.
1 Assistant.
1 Surveyor.

JOHN B. TRUMAN Chief
/Stenographer-Clerk.
1 Clerk.

J. J. SLAUTTERBACK Chief
/Assistant.
2 Clerks.
2 Trapping Instructors.

FIELD SERVICE.

8 DIVISION SUPERVISORS.

The Division Supervisor is in immediate charge of all field activities within his Division comprising a number of counties. He administers such activities under the direction and supervision of the Executive Secretary and Bureau Chiefs, and is directly responsible for control of field officers' expenses and efficiency of field personnel.

32 REFUGEE KEEPERS.

1. Protection and maintenance of Game Refuges.
2. Control of vermin on and near refuges.
3. Cooperate with District Game Protectors in law enforcement and winter feeding of game.
4. Trapping game for distribution in other localities.

64 DISTRICT GAME PROTECTORS.

1. Responsible for field activities in district including prevention of violations, law enforcement, feeding and distribution of game, dissemination of information, protection from forest fires, etc. 2. In charge of enforcement of game laws and winter feeding of game.

8 ASSISTANT GAME PROTECTORS

1. Assist District Protectors in duties above outlined.
2. Hold Commissions as Deputy Protectors.

400 DEPUTY GAME PROTECTORS

1. Volunteer officers, some of whom are employed on per diem basis during fall of year.



The efficient management of the present refuge system, consisting of thirty-two regular game refuges and ten auxiliary refuges, requires careful administrative attention. Suitable quarters for Refuge Keepers must be provided and kept in repair, plans for the protection of lands from forest fires must be developed, and other phases of the refuge work involving a large amount of detail work must be followed up closely. For the proper protection and administration, suitable roads, bridges, trails, and telephone lines must be maintained. The two-ton Holt tractor and Adams road grader purchased for road development work on State Game Lands are giving satisfactory service, and the Fordson tractor recently purchased for road maintenance will undoubtedly handle that work quite well. The refuges are now better protected than ever before, but there is still considerable work to do in order to give all tracts of land under control of the Board adequate protection. Many more miles of roads should be constructed as rapidly as funds are available. It is not good business to expend large amounts of money to purchase lands without providing adequate facilities for their proper protection.

A great deal more work is necessary in connection with the purchase of lands than was first apparent. Contracts with the owners must be entered into, warrant maps arranged for, title examinations taken up and assistance rendered to cure defects in titles before conveyance to the Commonwealth is possible. In order that lands purchased may be located on the ground and protected from fires, or careless neighboring lumbering operations, surveys must be made and lines marked permanently.

A special effort has been made to secure options on all lands under lease for regular game refuges, and during the past two years tracts known as No. 13 in southeastern Sullivan County, and No. 14 in southwestern Cameron County were contracted for and the purchase on No. 13 completed. Actual transfer of No. 14 in Cameron County will likely occur within the next few months. Purchase of two additional tracts under contract should be completed within a short time. The one, in southwestern Centre County, was surveyed some time ago, but unexpected difficulties have arisen in perfecting titles. The other tract under contract, located on Mosquito Creek in Elk and Clearfield Counties, will be taken over as soon as the chain of titles is perfected.

For your information, I give below data on the purchase of lands for game refuges and public hunting grounds.

PURCHASE OF LANDS
FOR
GAME REFUGE AND HUNTING GROUNDS To
June 1, 1924

No. of Re- fuge	County	Area Purchased (Acres)	Cost of Lands	Area under Contract (Acres)	Estimated Cost	Remarks
12	Bradford ---	7,492.9	\$18,732.25			Formerly leased Purchased in 1920
13	Sullivan ---	8,252.77	\$29,372.66			Formerly leased Purchased in 1924
14	Cameron ---			9,130	\$22,825.00	Under lease. Contracted for purchase in 1924
25	Elk -----	6,288.5	\$17,293.52			Purchased in 1920
26	Bedford ----- Blair ----- Cambria -----	6,778.90	\$25,872.05	95.35	\$2,500.00	Purchased 1920 & 1921 Two tracts and house contracted for in 1924
28	Elk Forest -----	9,142.7	\$22,856.67			Purchased in 1921
29	Warren -----	8,718.51	\$23,085.03			Purchased in 1920 and 1921
30	McKean -----	5,046.3	\$10,791.80			Purchased in 1923
31	Jefferson -----	3,471.4	\$8,678.47			Purchased in 1921
33	Centre -----			8,590	\$23,460.12	Contracted for 1921 Titles not perfected
34	Clearfield Elk -----			9,900	\$29,700.00	Contracted for 1924
TOTALS -----		55,192.07	\$156,682.45	27,715.35	\$78,485.12	

The average price paid for the above lands is \$2.84 per acre.

During the last two years new houses for Refuge Keepers have been built at Refuge No. 25, located on State Game Lands in northeastern Elk County; at Refuge No. 28, located on State Game Lands in western Elk County; at Refuge No. 5, located on State Forest Lands in southeastern Westmoreland County; and at Refuge No. 14, located on State Game Lands being purchased in southwestern Cameron County. Quite extensive repairs were made to other Refuge Keepers' houses in an effort to provide fairly comfortable homes. None of the houses built are elaborate but constructed so that they are substantial and comfortable. The maximum cost of houses so far constructed is \$3,500 per house. In order to hold the most desirable men on refuges, many of them in places remote from habitation, it is necessary to supply comfortable homes.

AUXILIARY GAME REFUGES: The ten Auxiliary Game Refuges now established, and the recent action of the Board directing that a special effort be made to create at least 200 of these refuges, have met with instant approval of the sportsmen. The auxiliary game refuge is unquestionably the second line of defense in preserv-

ing our game, especially in territory near large centers of population where extensive, unbroken forest areas are not available. The auxiliary game refuges so far established, ten in number, contain 6,775 acres, and the balance of the 13,379 acres leased to the Board for this purpose is open to public hunting.

Obtaining hunting rights on suitable tracts of land containing 1,000 or more acres as now desired by the Board for the establishment of auxiliary game refuges is rather difficult, as landowners are frequently doubtful about the advisability of entering into an agreement turning over the hunting rights to the Commonwealth for a period of ten or more years. The principal reason advanced by individual landowners against such agreements is that they may interfere with disposal of their lands in case they desire to sell during the life of the agreement. Other landowners are not sufficiently public-spirited or interested in wild life conservation to give the hunting rights to the state without remuneration. However, an intensive drive is now being made and many fine possibilities are being presented by interested sportsmen and landowners. An effort is being made to establish from two to five auxiliary refuges in every county.

The principal advantage of the auxiliary refuge is that almost any type of land can be used for this purpose. Some of the best auxiliary refuges so far established are located in agricultural sections where landowners have joined together contiguous blocks of suitable tracts of woodland and cultivated lands interspersed.

Both the regular and the auxiliary refuges have produced a larger supply of desirable native game, with the seed stock always protected, to overflow to open hunting territory surrounding the refuges than the same amount of money expended for either purchasing or rearing game in captivity.

FOOD AND COVER PLANTING.

With the rapid decrease in natural food and cover for wild life, due not only to lumbering operations, forest fires, chestnut blight, and adverse weather conditions, but in tillable sections to the tendency of the modern farmer to clear up and burn out every old fence row and briar patch, and drain every swamp, game has been hard pressed for winter food and cover.

While landowners throughout the state in many instances object to sportsmen coming upon their lands to hunt because they kill off some of the game, these very same landowners frequently do more with the pruning hook, the brush fire, and the plow to reduce the game on that land than the hunters would with firearms and dogs if game food and shelter were not carelessly destroyed. Lamenting

the passage of the old stake-and-rider fence with its briars, sumach, and other similar food and cover will not bring back the cover or the game that formerly found shelter and food therein. Neither will the lamentations of our modern farmers, concerning the disappearance of Bobwhite and his family from their lands, bring back the birds unless they do something to restore the cover and winter food for them.

In an effort to offset these conditions, a campaign to have more natural food and cover planted for our game and wild birds has been waged during the last two years. Efforts of our employes in this direction have been principally on lands either purchased by the Board or otherwise under our control for refuge purposes, although Game Protectors individually and in cooperation with interested sportsmen have accomplished a great deal along this line throughout the state.

During the last two years such planting operations at refuges have been as follows:

NO. TREE SEEDLINGS PLANTED

For Reforestation	To Increase Game Food	NO. OF BERRY BUSHES	NO. OF CUTTINGS	NUTS & SEEDS (Quarts)
<u>1923</u>				
<u>91,200</u>	63,524		5,375	
<u>1924</u>				
<u>150,119</u>	32,922	12,150	4,431	292

During 1923 the Game Protectors, exclusive of Refuge Keepers, planted 4914 grapevine cuttings; 124 quarts of nuts, and other planting in smaller quantities. During 1924 the same officers also aided in distributing and planting tree seedlings, and they planted 15,565 seedlings themselves, distributed 75,640 seedlings to others, and planted 1,350 grape cuttings and 532 quarts of nuts.

From the above it will be noted that during the last two years our field officers planted or aided in planting for reforestation a total of 332,556 seedlings; to increase game food 96,446 seedlings; 16,070 cuttings of grapevines, etc. to supply game food; and 948 quarts of nuts of various kinds. Thousands of seedlings and large quantities of nuts also have been planted by sportsmen throughout the state.

From experience we have found that it is useless to plant species demanding plenty of light, and ordinarily thriving only in open places, anywhere in forest cover, as they are simply choked out and no benefit is derived therefrom. The only way that successful planting of such species in forest cover can be done is by opening up and keeping trimmed out all other growth until the seedlings or cuttings attain sufficient growth to overcome the handicap of other vegetation. This cleaning out operation is very expensive and its advisability questionable.

The Department of Forests and Waters has aided in this work by supplying forest seedlings in generous quantities. They have also started beds of fruit and nut-bearing trees at their various nurseries for our use, for which splendid co-operation we are indebted to them.

GAME CONDITIONS.

Game conditions in most respects are believed to be improving; in some instances quite rapidly. A decrease in certain other species is apparent. During the past two years your Secretary has conferred with many sportsmen from all parts of the state, and practically all field employes, in an endeavor to obtain the best possible information on this subject. Weather and vermin conditions have been a large factor in changing game conditions, although, generally speaking, since 1918 weather conditions have been quite favorable to game. As a matter of more detailed information I beg to submit the following:

ELK: These animals are increasing slowly, but in some sections are causing considerable annoyance to landowners. Twenty-three legal bull elk were killed during the season of 1923—the first open elk season in Pennsylvania for many years. It can hardly be said that the importation of these animals has proven successful. The range is not sufficiently extensive to permit them to increase and indulge in their usual erratic wanderings without causing some annoyance to farmers.

DEER: These animals are increasing rapidly throughout the entire state. 6,452 legal buck deer were killed during the 1923 season, while during the 1922 season 6,115 bucks were killed. In 1921 4,840 legal male deer were killed. Had it not been for the change in the deer law, the kill during the 1923 season would likely have been more than 7,500 legal bucks, so that the new deer law saved about 1,000 bucks for breeding animals this coming fall. Another thousand strong young bucks, with spikes over six inches long and legally killed, should have been saved. Since the 1923 season, there is a stronger demand than ever for a two-point buck law and protecting "spike" bucks absolutely. Some sportsmen suggest that the law be so changed that no one will be permitted to keep a deer without prongs, and that while they would not favor imposing more than a nominal fine upon anyone killing by mistake a deer without points, it is their opinion that the law should be so changed that such deer shall be confiscated at once and turned over to a charitable institution, and the hunter killing a deer without antlers with prongs shall at once leave the deer country and do no more hunting that season.

I believe that prior to the 1927 session of the Legislature sentiment will crystallize among sportsmen so that they will insist upon a change in this feature of the law. If so, the kill of illegal deer will be further reduced, still more young bucks will be spared, and the sexes better proportioned.

Due to the fact that forest fires have been well controlled during the past few years, forest growth in many sections has reached the stage where underbrush is being choked out, and natural food for deer is much reduced in many localities. As a result, the rapidly increasing herds of female deer frequently encroach upon farm crops adjacent to forest areas. The dry seasons in 1922 and 1923 were also somewhat responsible for the large number of deer that foraged on succulent farm crops, because young forest growth was limited due to weather condition.

Property owners frequently complain bitterly about the damage deer, mostly females, are doing to their crops. The seriousness of the complaint usually depends upon how much the landowner is interested in hunting, or housing and feeding hunters during the open season. The crops most seriously affected by deer are oats, buckwheat, and young fruit trees, and to a limited extent vegetables, wheat, and rye. Grazing on winter grain, according to observations, in many instances does no harm to the crop if not continued too extensively or late into the spring when the grain begins to joint. In most instances, the crop of wheat or rye is actually better on the portion of a field where deer have grazed within reason, providing soil conditions are equal. Grazing on winter grain is usually discontinued about the time forest vegetation starts growing nicely.

The special open season on female deer in Washington and Quincy Townships, Franklin County, for which 100 special licenses were issued, and 92 of the licensees hunted at least the first day, resulted in the killing of only eight female deer. Two bucks, one a freak plenty large enough to have two points to a side but with such undeveloped antlers that they could not be seen, and the other a baby buck were killed. There was sufficient excuse for killing the larger buck, and it is thought the baby buck was in direct range when a sportsman was shooting at a legal female deer, which could easily occur. While the number of does killed made no perceptible decrease in a locality where deer are seen in droves of 25 to 75, the special doe season had the effect of bringing the seriousness of this problem to the attention of the sportsmen in a more forceful manner than otherwise possible. It also had a tendency to bring landowners and sportsmen in that part of the state in closer contact so that they may understand each other better.

No matter how distasteful it may be, the writer is more convinced than ever before that in a very short time the plan suggested by some far-sighted sportsmen will have to be adopted; namely, reverse the order for one season, probably only ten days, by special act of the Legislature, either throughout the entire state or only such counties as may be affected most seriously, and *permit the killing of any deer except one having antlers that during an ordinary season would be legal.* By so doing it will not be dangerous to sportsmen, and with proper publicity it would no doubt be possible to have the sportsmen confine their efforts during such special season to sections where the deer are causing most annoyance to landowners, and most of the killing could be confined to large female deer. *In addition to relieving conditions all the bucks would be saved for the following year, and the sexes again be better balanced.*

By handling the matter in this way the number of female deer would be so reduced that the difficulty would be overcome for a period of probably eight or ten years, and it would be quite safe for sportsmen to hunt for female deer because before firing hunters would first have to be sure that a deer does not have antlers.

While several attempts have been made to trap female deer for transfer to other sections for stocking purposes, both by the Department and interested sportsmen, who were offered \$25.00 for each deer trapped and delivered to the railway station, the number of deer that can be transferred by this method will do but little to relieve conditions in sections of the state where most annoyance to landowners is now occurring, except probably at a very excessive cost. Sportsmen and landowners generally agree that the cooperative fence now provided for does not help the average farmer, and that no system of paying damages will be equitable, even though sufficient funds could be made available for such purposes.

BEARS: Bears appear to be increasing rapidly and are scattering throughout territory where during the last twenty years they were not found except in rare instances. Changing food and cover conditions are partly responsible for this condition. During the 1923 season only 500 bears were killed because they were much scattered throughout the state, and there was no tracking snow until very late in the season. In 1922 a total of 563 bears and in 1921 510 bears were killed.

The increase in the camp limit of four bears instead of three as heretofore allowed was not responsible for the killing of many additional bears. Very few camps or hunting parties were successful in killing their camp limit.

The record black bear for all time in Pennsylvania, so far as our records go, was killed on December 4, 1923, about two miles from

the home of Governor Pinchot near Milford, Pike County, by Norman B. Cokyndall of Milford, Pa. The actual weight of this bear as killed was 633 pounds, and hog-dressed 538 pounds. The total length of the bear was nine feet and from tip to tip of the ears was nineteen inches. This unusual record was verified by one of our field officers.

Quite a number of large bears weighing from 300 to 450 pounds were killed last year, but the majority of grown black bears killed do not weigh more than about 200 to 250 pounds hog-dressed.

Regardless of the fact that quite a number of bears were trapped out of Potter County for stocking purposes in other portions of the state, where they are apparently contented and thriving, bears are still causing more or less trouble in Potter County through killing sheep and destroying beehives. The same condition prevails in a portion of McKean County, where bears are now being trapped for stocking purposes. Under the new law, bona fide claims for damage done by bears are being paid promptly, but such damage can be decided upon quite readily because there are specific units with which to deal.

RABBITS: During the 1922 season rabbits were fairly plentiful, but during the 1923 season sportsmen invariably reported rabbits scarce. The average kill, according to tabulations of reports received from hunters for 1921, was approximately $9\frac{1}{3}$ rabbits each; for 1922— $7\frac{2}{3}$ rabbits each; and for 1923— $6\frac{2}{5}$ rabbits each. Rabbits appeared to be quite plentiful during the late summer of 1923, but during September and October apparently died in large numbers. Various causes were ascribed, although none of them definitely fixed because the scarcity was not known until the hunting season was under way. Many observers believe it is a periodic scarcity resulting from disease among rabbits. Others report finding dead rabbits with no marks of injury, which upon being opened showed the alimentary tract impacted but no evidence of disease. Some observers reported that the unusually dry season, with an absence of succulent vegetation, brought about this condition. Others felt that blight upon clover and other grasses was responsible. Probably all three of the above conditions combined were largely responsible for the scarcity of rabbits, but after the close of the season tracks indicated rabbits were left over in about the same number as in former years. During the season it was observed that rabbits sat very close and were not easily routed.

Quite a number of sportsmen reported that in their opinion ring-neck pheasants were killing off the rabbits. A careful inquiry was made which developed the fact that rabbits were just as scarce where there were no ringnecks as in sections where there were plenty of

these game birds. This would apparently disprove the theory that ringneck pheasants were responsible for the scarcity of rabbits.

If vermin conditions are controlled and stray dogs and cats controlled or disposed of, rabbits will increase rapidly. Early reports this spring are quite favorable.

SQUIRRELS: Squirrels have increased during the past two years. Food conditions during the 1923 season were unfavorable, and many squirrels were killed in small patches of woodland where ordinarily squirrels are not found in any number. The kill of squirrels during 1921 was approximately $1\frac{1}{3}$ squirrels per hunter; in 1922— $2\frac{1}{2}$ squirrels per hunter; and in 1923— $2\frac{1}{4}$ squirrels per man. Much feeding was done during the winter months, which helped the squirrels through in good condition. In one instance 25 or 30 squirrels wintered in a straw stack in Potter County, where they were supplied food by the farmer who is a sportsman. Reports this spring are very good. Timber conditions are gradually improving for squirrels, and with the later open season they should continue to increase.

WILD TURKEYS: These fine game birds are increasing even though hunted very hard. During the 1923 season slightly over 6,000 wild turkeys were reported killed, while during the 1922 season the kill was about 5,400. Weather conditions were such that the turkeys pulled through the winter in good condition, but much feeding was done, some of our officers in turkey territory distributing more than 100 bushels of corn during the winter months. Wet weather this spring has made it rather difficult for the young turkeys, and the supply of young birds reared may be somewhat limited.

RUFFED GROUSE: Ruffed grouse are showing a gradual increase. The sportsmen deserve credit for their continued conservative killing of ruffed grouse, and the interest they have been taking in destroying vermin in extensive stretches of grouse cover remote from habitation. The average kill in 1921 was about $\frac{3}{4}$ of a bird for every hunter; in 1922 one bird per hunter; and in 1923— $1\frac{1}{5}$ grouse per hunter. A large percentage of the hunters killed no grouse at all, and while this average is small, in view of the fact that we had about 600,000 hunters, licensed hunters and those who hunted legally without licenses, the total number of birds killed on even this small average makes an astounding number taken.

RINGNECK PHEASANTS: While ringneck pheasants are not in the same class with ruffed grouse as game birds, they are doing quite well in many sections of Pennsylvania and are furnishing considerable sport. Since female pheasants are now protected these birds should show a much more rapid increase than heretofore.

While some counties do not desire ringneck pheasants, others are quite anxious for them, and the Board should continue securing a reasonable supply each year for stocking purposes.

It is gratifying to note that comparatively few hunters killed hen pheasants last year, even though this law was new. In almost every instance such hunters took advantage of the new provision in the law permitting a rebate in the penalty when birds or animals are killed by mistake.

BOBWHITE QUAIL: Quail continue to show a decided increase. During the spring of 1923 no Mexican birds were available for stocking purposes, but this spring 6,279 birds were purchased and stocked. In many sections landowners are permitting reasonable hunting for quail. In other parts of Pennsylvania many of the landowners refuse to permit any hunting for quail. During the winter months quail were fed quite extensively. Officers of the Department and many interested sportsmen and landowners built shelters for this purpose. An effort was made to have a large number of quail trapped and the coveys intermixed, but because of the short duration of severe winter weather it was not possible to have any large number trapped. It is recommended that this matter be taken up again next winter.

HUNGARIAN PARTRIDGES: These birds are about holding their own in Pennsylvania in the few sections where they were stocked, but do not show the same degree of increase as Bobwhite quail. Unfortunately, the prices asked for birds for stocking purposes are entirely out of proportion to their value, although changing European conditions may again bring the price within reach. If so, the Board could well afford to give the Hungarian partridge a thorough trial.

WOODCOCK: During the past two years woodcock reports were not at all encouraging. Many Pennsylvania sportsmen would be willing to have the Federal Government close the season for several years throughout the entire United States. Weather conditions, especially during 1923, were unfavorable. Many of the ordinary woodcock feeding grounds were dried and not inhabited by woodcock, either resident breeding birds or migrants.

WILD WATERFOWL: According to observation, wild waterfowl are increasing. Many more of these birds have been observed during the springtime than for many years past. Stream conditions were not very favorable for waterfowl shooting in Pennsylvania during the last two hunting seasons. Inland stream shooting is adversely affected when the streams are low, nevertheless the sportsmen are much pleased to note the increase in these game birds.

BEAVERS: The various colonies of beavers have increased so rapidly where stocked that they have spread to a number of desirable locations within a radius of fifteen to twenty miles from the point where the original colonies were started. They are now quite well scattered throughout the state. The residents generally appreciate their presence, although in a few instances beavers have caused trouble and annoyance by interfering with the flow of private water supplies and through cutting privately owned timber in limited quantities. In a number of instances beavers have aided owners of power dams to hold their water supply and saved the cost of labor for such work. The majority of material cut for their use is of but little commercial value.

Investigations have been made to ascertain whether their operations in general are undesirable, and in but few instances has evidence been supplied indicating that beavers are undesirable on certain streams. Invariably the descent of the streams is so rapid in Pennsylvania that areas flooded by their dams are comparatively small, but in a few instances dams have been built in streams where the descent was not rapid and quite large areas have been flooded.

Temperature tests of water have been made during hot dry seasons to ascertain whether the impounding of water by beavers has a tendency to raise the temperature of the water and make it less desirable for trout. According to tests made, in no instance has sufficient variance in temperature above and below the dam occurred to prove detrimental to trout. Practically every beaver dam abounds in these game fish, so that the beavers cannot be considered undesirable in this respect, and, their food being purely vegetable, fishermen are usually pleased with the presence of beavers on trout streams.

Indications are that beavers are increasing rapidly enough to warrant an open season within a comparatively short time. Plans are now being made to trap and transfer beavers from old well-established colonies to some new locations where sportsmen are anxious to see them stocked.

HUNTERS' LICENSES AND GAME KILLED: In 1913, the first year Resident Hunters' Licenses were issued, a total of 305,028 licenses were purchased by the sportsmen of Pennsylvania. In 1915 the number dropped down to 262,355 Resident Licenses and 532 Non-Resident Licenses. The number of licenses has increased gradually since that time. The largest jump occurred between 1918 and 1919, largely as a result of returning soldiers. The increase in 1919 was about 90,000 over 1918. During the last five years licenses have been issued as follows:

<i>Year</i>	<i>Resident</i>	<i>Non-Resident</i>
1919	401,130	1128
1920	432,240	1725
1921	462,371	1761
1922	473,735	2126
1923	497,191	2328

From the above it will be noted that the increase in hunters' licenses since 1913 has been 64%, while during the same period the population of the state has increased only 14%. If the issuance in 1923 is compared with 1915, the increase in Resident and Non-Resident licenses in eight years is 90%. During 1923 about one out of every eighteen men, women, and children in the state had hunting licenses.

The enormous increase in hunters' licenses is due to a rapidly growing tendency toward more outdoor recreation, especially for all indoor workers, improved hunting conditions, improved roads and laws making it reasonably safe to enjoy the forests during the hunting season—the most delightful time of all the year to roam the forests.

The hunters' license tags issued during the 1923 season were superior to any heretofore issued, and sportsmen generally were pleased with the better visibility of numerals and consequent opportunity to detect law violators. More care was exercised by indifferent hunters than ever before, and as a result the law was better observed.

For the 1921 season the kill of game as tabulated from reports of our officers was given in the addendum to the report for 1921. For the 1921 season 47,000 hunters, or 10½%, filed reports of game killed. For the 1922 season slightly less than 30,000, 6¼% of the total licenses issued, reported the quantity of game killed. The new law requires hunters to file their reports, but apparently only about 100,000, or 20% of the licensed hunters, have filed such reports for 1923. It is hoped returns will be much better in the future.

During the 1921 season the average number of days each person hunted was slightly more than 7½ days, while in 1922 the average was about 7⅓ days per hunter. The 1923 figures are not yet tabulated.

The total kill of game for the 1922 season, using the base figure obtained by tabulating reports filed by sportsmen for small game, and actual count by our officers for large game and wild turkeys, on a basis of 600,000 hunters, amounted to more than 6,500 tons, as against 4,700 tons in 1921. For further statistics see the statistical year book, soon to be published.

HUNTING ACCIDENTS.

The number of hunting accidents continues entirely too high, although with an increasing number of hunters each year, many of them inexperienced, it is difficult to reduce the number of accidents, even though much effort has been made to that end. From data collected it is evident that 50% of the fatal accidents, and over 31% of the non-fatal, are self-inflicted, and an analysis indicates that most hunting accidents are caused by inexperienced hunters under eighteen years of age.

The hunting accidents, both fatal and non-fatal, during the last five years have been as follows:

<u>Year</u>	<u>Fatal</u>	<u>Non-Fatal</u>
1919	35	128
1920	43	85
1921	29	130
1922	37	125
1923	55	106

Under the new law imposing heavy fines upon persons shooting others in mistake for wild creatures, a half dozen or more careless hunters have been severely punished during the last two years. These cases have been given considerable publicity and have undoubtedly had a salutary effect upon such criminal carelessness. The persons so prosecuted, the offense, and the sentence imposed in the most important cases are as follows:

NAME	ADDRESS	OFFENSE COMMITTED	RESULT OF PROSECUTION
J. E. Arnold	Shamokin	Shot and killed John Ditzler of Lycoming County in mistake for a bear on Dec. 12, 1920.	Sentenced to pay fine of \$500 and serve a jail sentence of one year. License denied for 10 yrs.
Albert Shopwell	Newville	Shot and killed Raymond Bitner in mistake for a groundhog on July 5, 1923.	Sentenced to pay \$500 to family of deceased and suffer imprisonment in county jail for a period of 2 yrs. License denied for 10 yrs.
Harry Hersker	Hazleton	Shot and killed Wm. J. Wytchunas and wounded Geo. Kosko in mistake for a bear on Nov. 6, 1923 in Potter Co.	Sentenced to pay \$1000 to family of deceased and \$500 to wounded man. License denied for 10 years.
Walter L. Keiser	Milton	Shot John J. Oberdorf in mistake for a wild turkey during hunting season of 1923 in Union County.	Case pending.
C. S. Brewer	Ringgold	Shot F. C. Freidline in mistake for gray squirrel during 1923 hunting season.	Gave bail for appearance in court.

WILD BIRD PROTECTION.

Song and insectivorous birds—now classed as “protected birds” under our law—have been given additional attention during the last two years. Pennsylvania has always led other states in the matter of protecting beneficial wild birds, and the additional educational work now being taken up, through lecture work, posters, etc., is having its effect. More residents of the Keystone State are taking an interest in wild bird protection now than ever before, and the addition of an ornithological lecturer to the staff is a step in the right direction.

EDUCATIONAL ACTIVITIES.

During the past two years much educational material has been mimeographed and distributed to sportsmen's organizations, magazines and the public press. In addition thereto, thousands of posters of various kinds have been prepared and distributed throughout the state. The two most recent posters, one on the destruction of wild life by homeless cats, and the other on wild bird protection, have met with approval and a fine spirit of cooperation throughout the state. More of this poster work can be taken up to good advantage.

During the past two years only one bulletin, on “The Refuge System of Pennsylvania,” has been published, but six bulletins, either new or former bulletins being rewritten, are under way.

The development of moving pictures is progressing but requires a great deal of time and careful study to obtain suitable material.

One phase of our educational work that has brought quick results is through exhibition of foundling animals at our refuges and public parks. Hundreds of thousands of people in all walks of life view these animals annually. As an experiment, one of our Refuge Keepers, Mr. Rearick of Clearfield County, was permitted to secure a limited amount of lumber and wire for enclosures, and he has been exceptionally successful in creating widespread interest by exhibiting cub bears, fawns, raccoons, foxes, and other animals. His refuge headquarters, a place quite remote from large centers of population, have become the center of attraction for nature students for many miles around. As a result, the traffic problem during the summer months at that refuge is becoming rather difficult, and Sunday is the busiest day of the week. On holidays, Sundays, and other times when people are prone to take trips to places of interest from 500 to 1500 people visit the display at that point. During the past year 8,678 persons have registered in books supplied for that purpose, and Refuge Keeper Rearick is of the opinion that only about one-fourth

of the visitors actually register. This would indicate that at least 25,000 people visited that display in one year. Other Refuge Keepers have done similar work on a smaller scale, and thousands of people were interested and enlightened thereby.

STATUS OF FUNDS.

Tabulated financial statements attached give the receipts and expenditures since December 1, 1921, the date of the last printed report.

Due to a change in the accounting system effective June 1, 1923, the statements are not all arranged in the same manner but all give the information desired by sportsmen. The statement for the past fiscal year is arranged in accord with the uniform accounting system headings now used and is sub-divided under the general office and the several Bureaus. The various charges appear either under the general office or the Bureau to which bills were rendered and payment approved. While more detailed information is given than heretofore, in some instances the present accounting system does not lend itself to group segregation of some items of expense covering various activities.

The budget for the next fiscal year will take up all available revenue. During the past two years purchases of lands contracted for were not completed as rapidly as anticipated, and game was not available in sufficient quantities to take up more revenue, otherwise expenditures would have been fully equal to the income.

In the statistical year book to be prepared and published annually, covering statistics of all Departments, will be found further detailed statistics on various activities of the Board.

Respectfully submitted,

SETH E. GORDON,

Executive Secretary.

FINANCIAL STATEMENT OF GAME COMMISSION FOR SIX MONTHS
 (December 1st, 1921 to May 31st, 1922)

Balance to our credit in State Treasury December 1st, 1921,		\$362,434.68
DEPOSITS:		
Not revenue from Hunter's Licenses deposited with this fund,	\$94,179.77	
Penalties, costs, special licenses, etc. deposited,	29,242.06	123,421.83
Total,		\$485,856.51
DISBURSEMENTS:		
Salaries of Game Protectors, Assistant Game Protectors and general office force,	72,121.08	
Expenses of salaried officers,	32,232.96	
Salaries and expenses of Special Deputy Game Protectors employed for special duty,	21,849.67	
Salaries of Game Refuge Keepers,	14,780.40	
Expenses of Game Refuge Keepers purchase and erection of telephones, buildings, supplies, repairs, etc., for thirty-two Refuges,	13,569.81	
Expenses on Auxiliary Refuges,	230.07	
Game purchased and distributed,	57,909.59	
(Refunds from carriers for losses \$26.00)		
Expenses in caring for game held for liberation,	988.61	
Expressage on game, etc.,	57,909.59	
(Express refunds \$430.78)		
Grain and feed purchased for feeding game,	1,736.78	
Advertising the closing of counties,	297.77	
Bounties paid on dogs killed while chasing deer,	110.00	
Attorney Fees,	210.00	
Postage,	2,272.34	
Purchase and upkeep of automobiles and motor-boat,	4,884.64	
Purchase of Lands:		
Bedford & Cambria Counties, Refuge No. 26,	\$1,299.38	
Warren County, Refuge No. 29,	1,000.00	
Badges for Special Deputy Game Protectors,	45.00	
Cost of physical examination of officers,	23.00	
Cost of tabulation of Hunter's Reports of Game killed during open season, 1921,	141.25	
Bounties from December 1st, 1921 to May 31st 1922, inclusive, per detailed list attached to this report,	96,664.50	
Salaries, employees of Bounty Division,	3,672.50	
Miscellaneous,	441.03	339,719.64
Balance May 31st, 1922,		\$146,136.87

FINANCIAL STATEMENT OF GAME COMMISSION FOR FISCAL YEAR
 (June 1st, 1922 to May 31st, 1923.)

Balance to our credit in State Treasury June 1st, 1922,		\$130,427.24
DEPOSITS:		
Net revenue from Hunter's Licenses deposited with this fund,	\$503,600.53	
Penalties, costs, special licenses, etc. deposited,	58,514.56	562,115.09
Total,		692,542.33
DISBURSEMENTS:		
Salaries of Game Protectors, Assistant Game Protectors and general office force,	144,567.32	
Expenses of salaried officers,	70,331.48	
Salaries and expenses of Special Deputy Game Protectors employed for special duty,	22,295.56	
Salaries of Game Refuge Keepers,	29,571.32	
Expenses of Game Refuge Keepers, purchase and erection of telephones, buildings, supplies, repairs, etc. for thirty-three Refuges,	27,520.85	
Expenses on Auxiliary Game Refuges,	9.00	
Game purchased and distributed,	24,903.84	
Expenses in caring for game held for liberation,	1,421.36	
Expressage on game, etc. (Express refunds \$60.33)	8,087.80	
Grain and feed purchased for feeding game,	2,198.25	
Advertising the closing of counties,	944.23	
Bounties paid on dogs killed while chasing deer,	215.00	
Attorney Fees,	262.81	
Postage,	2,775.88	
Purchase and upkeep of automobiles,	12,282.04	
Purchase of Lands:		
McKean County, Refuge No. 30,	\$10,091.80	
Warren County, Refuge No. 20,	247.50	
Badges for Special Deputy Game Protectors,	95.25	
Cost of physical examination of officers,	90.00	
Cost of tabulation of Hunters' Reports of Game killed during open season, 1922,	99.75	
Bounties from June 1st, 1922 to May 31st, 1923, inclusive, per detailed list attached to this report,	93,741.00	
Salaries, employees of Bounty Division,	7,345.50	
Miscellaneous,	1,275.14	461,272.68
Balance May 31st, 1923,		\$231,269.65

FINANCIAL STATEMENT OF GAME COMMISSION FOR FISCAL YEAR
 June 1st, 1923 to May 31st, 1924.

Balance to our credit in State Treasury June 1, 1923,

DEPOSITS.

\$224,338.61

Net revenue from Hunters' Licenses deposited with this fund,
 Penalties, costs, special licensees, etc. deposited as per attached statement,

Total,

\$613,007.78
 60,250.49

673,258.24

\$807,596.85

DISBURSEMENT.

	General Office	Bureau of Protection	Bureau of Refugees	Bureau of Vermin Control	Total
Salaries of regular officers, -----	\$19,337.78	\$125,240.10	\$35,627.64	\$8,843.10	\$189,048.62
Traveling Expenses of regular officers, -----	1,172.79	70,766.18	3,376.29	727.00	76,042.26
Deputy Game Protectors, -----					
Salaries, -----					
Expenses, -----					
Labor employed on Refuges (cutting fire lines, repairing roads, planting, etc.), -----		17,722.50			17,722.50
Salaries, -----	\$9,635.10				
Expenses, -----	73.43				
Horse Feed at Refugees, -----					
Feed purchased for Game, -----					
Office Supplies, -----					
Office Equipment (Typewriters, files, desks, etc.), -----					
Postage, -----					
Telephones, -----					
Telegrams, -----					
Express, Cartage, etc. (Mostly on Game) -----					
Purchase of Game, -----					
Miscellaneous Supplies, -----					
Miscellaneous Equipment (Horses, plows, tools, harness, tractors, road-wagons, traps) -----	798.12	536.67	2,075.84	3.75	3,431.38
Motor Supplies (Gas, oil, parts), -----					
Motor Equipment (Cars, tires, tubes, etc.), -----					
Attorney Fees, -----					
Bounties paid for killing dogs chasing deer, -----					
					255.00

FINANCIAL STATEMENT OF GAME COMMISSION FOR FISCAL YEAR
June 1st, 1923 to May 31st, 1924.

	General Office	Bureau of Protection	Bureau of Refugees	Bureau of Vermin Control	Total
Physical examinations of employees, Return of fines erroneously collected and deposited, Miscellaneous wages, fees, etc., (Labor and insurance on autos, affiliation fees, trapping and earing for game (\$968.50) repairs, etc) Printing and paper (including purchase of license tags), Newspaper Advertising (Closing of counties and Auxiliary Refuges), Purchase of Lands:	\$ 55.00 25.00 1,114.69 27,234.58 394.75	65.00 1,839.40	20.00 2,287.01 45.07	----- 31.50 -----	\$ 140.00 25.00 5,272.60 27,234.58 439.82
Sullivan Co., Blair Co., at Refuge #26 McKean Co., at Refuge #30 Jefferson Co., Refuge #31 Buildings and Construction on Refugees, Rentals and Storage (Auto Storage, Refuge House Rent, etc.), Taxes and fixed charges on lands, Payment of Bounties,	\$29,372.66 1,500.00 700.00 5,678.47	----- ----- 95.30 -----	40,251.13 6,265.45 481.55 5,177.63	40,251.13 6,265.45 19.25 96,040.00	40,251.13 6,265.45 1,350.45 5,177.63 96,040.00
Totals,	\$143,635.76	\$237,133.98	\$119,989.60	\$107,408.70	\$605,168.04
Appropriated from game fund for two fiscal years, June 1st, 1923 to May 31st 1923 and Damage to livestock and bees by bears, Cooperative deer fence, Balance May 31, 1924,			\$ 6,000 10,000	16,000.00	* \$624,168.04 \$273,426.81

*Of this amount twelve claims totalling \$1,212.00 have been paid; No bills have so far been paid from the deer fence fund, although several accounts against said fund are pending.